Controller is ready for writing two sets of data from page3 of block 0 into the flash memory cell. PageN-1 Page() Page3 PageN Page2 Page4 Page1

Block 0

PRIOR ART FIG. 1A

Block O(old block)

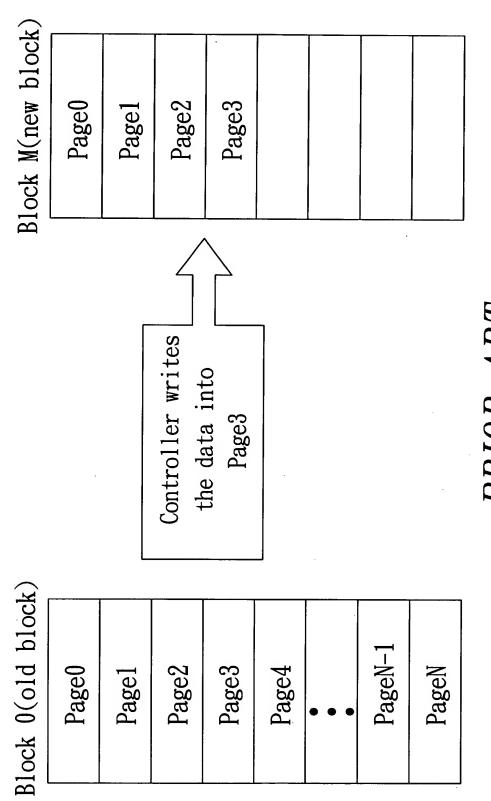
٠.		· · · · · · · · · · · · · · · · · · ·						
	Page0	Page1	Page2	Page3	Page4	•	PageN-1	PageN

The conventional controller selects one new block, the data in page3 is transferred from the corresponding page from the old block to the new block.

Block M(new block)

|--|

PRIOR ART FIG. 1B



PRIOR ART FIG. 1C

Block M(new block) Page0 Page2 Page4 Page3 Pagel Controller writes the data into Page4 Block 0(old block) PageN-1 Page3 Page() Page2 Page4 PageN **Page1**

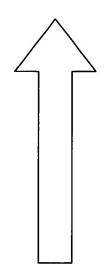
PRIOR ART FIG. 1D

Block 0(old block)

D	rageu	Page1	Page2	Page3	Page4	• • •	PageN-1	PageN
		I					I	

Controller transfers the block below page4 from the old block

to the new block.



PageN-1

PageN

PRIOR ART FIG. 1E

Block M(new block) Page0 Page2 Page3 Page4

Block 0 (Mother)
Page0
Page1
Page3
Page4
PageN-1
PageN-1

Controller erases the old block and allow the new block replace the old block 0.

Page2

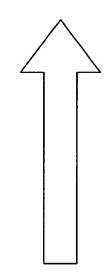
Page1

Page3

Page4

Block M Block 0

Page()



PageN-1

PageN

PRIOR ART FIG. 1F

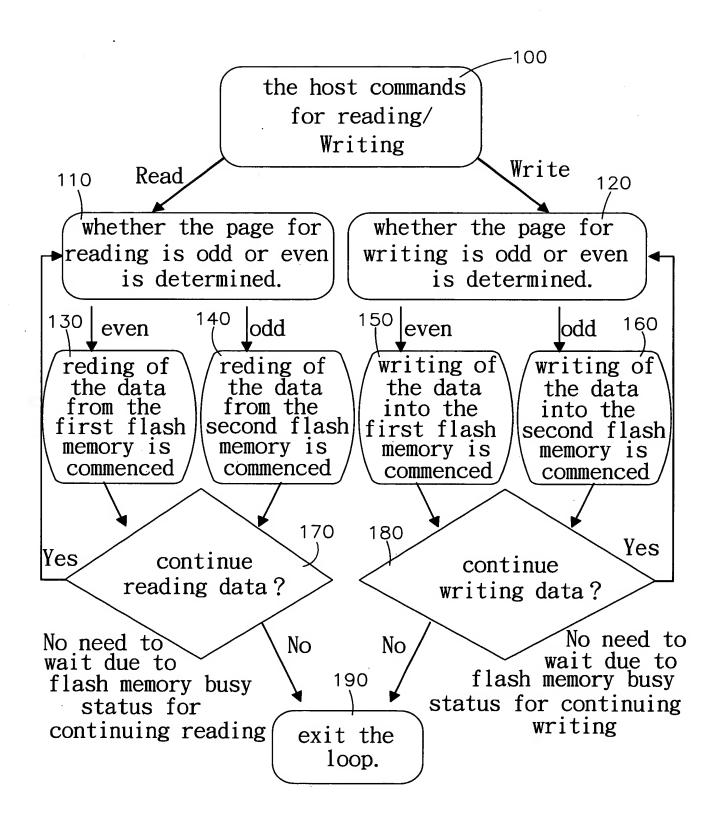
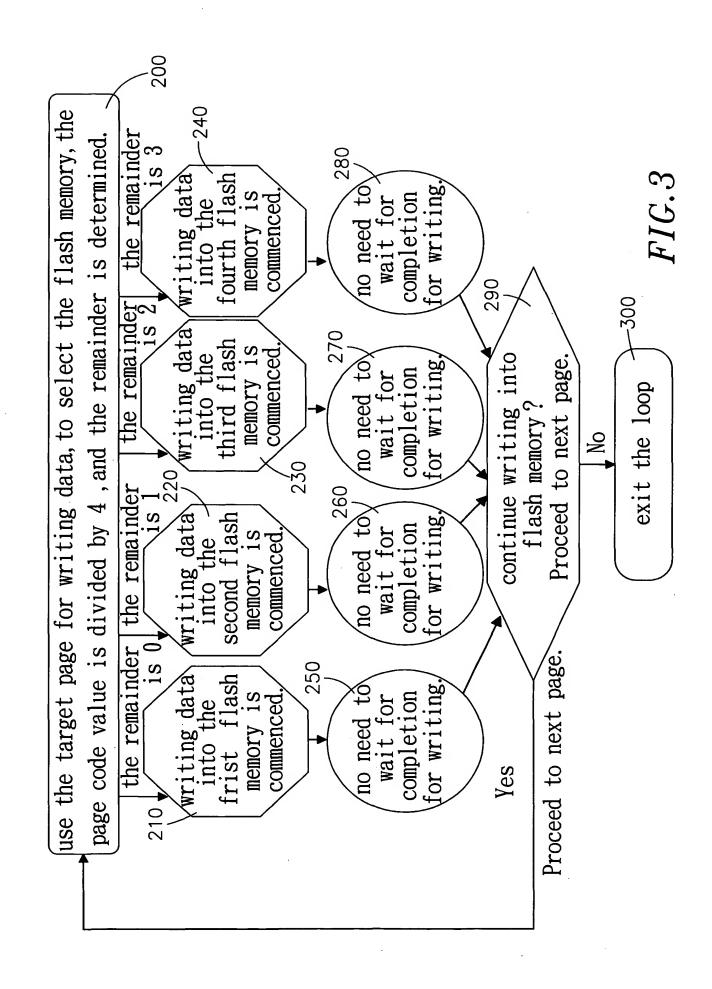


FIG.2



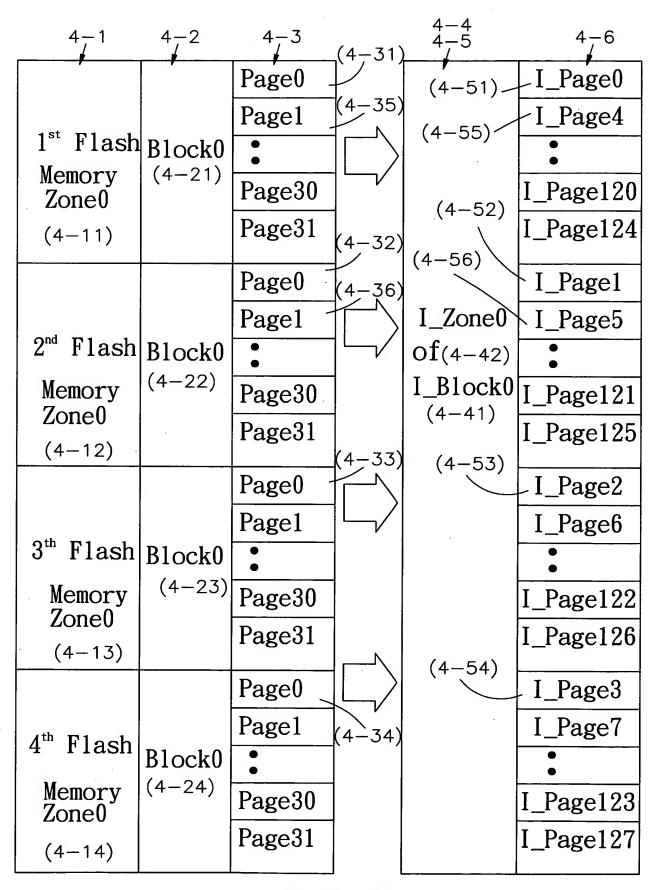


FIG.4

5-	-1 5 <u></u>	2 5-3	3 5 - 4
I_Zone0 🖊	I_Zone1 🖊	I_Zone2 🖊	I_Zone3
I_Block0	I_Block0	I_Block0	I_Block0
I_Block1	I_Block1	I_Block1	I_Block1
I_Block2	I_Block2	I_Block2	I_Block2
I_Block3	I_Block3	I_Block3	I_Block3
I_Block4	I_Block4	I_Block4	I_Block4
I_Block5	I_Block5	I_Block5	I_Block5
I_Block6	I_Block6	I_Block6	I_Block6
I_Block7	I_Block7	I_Block7	I_Block7
•	•	•	•
I_Block1016	I_Block1016	I_Block1016	I_Block1016
I_Block1017	I_Block1017	I_Block1017	I_Block1017
I_Block1018	I_Block1018	I_Block1018	I_Block1018
I_Block1019	I_Block1019	I_Block1019	I_Block1019
I_Block1020	I_Block1020	I_Block1020	I_Block1020
I_Block1021	I_Block1021	I_Block1021	I_Block1021
I_Block1022	I_Block1022	I_Block1022	I_Block1022
I_Block1023	I_Block1023	I_Block1023	I_Block1023

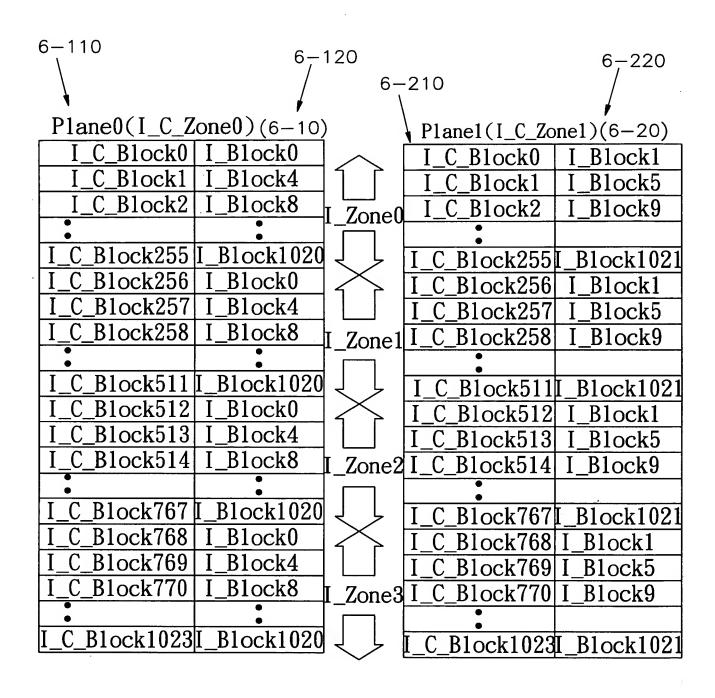


FIG.6A

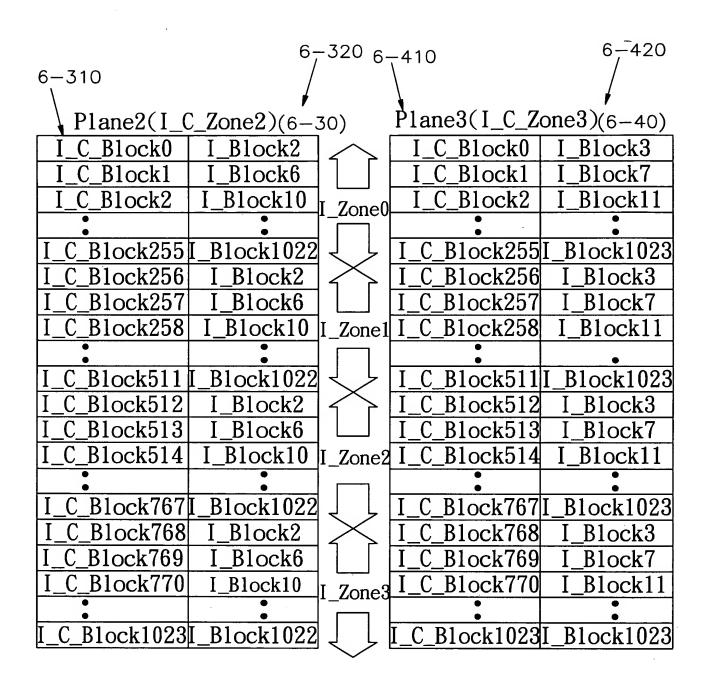


FIG.6B

